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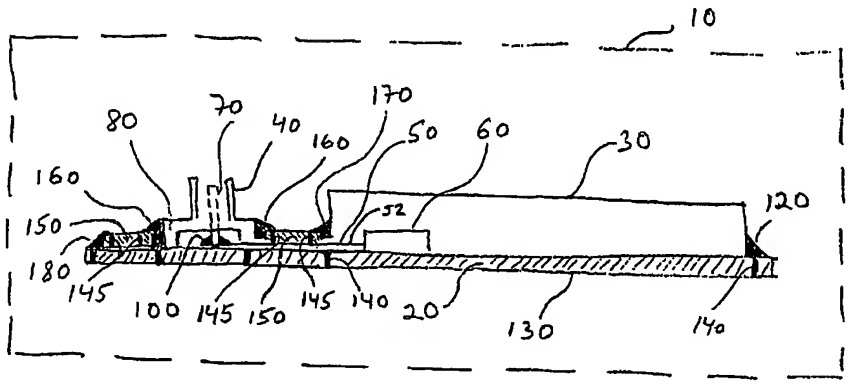
(54) Title: LOW EMI WITH HIGH MECHANICAL STRENGTH METHOD OF CONNECTING SIGNAL CONNECTIONS



(57) Abstract: A Low cost apparatus and method of EMI (electromagnetic interference) shielding of physical connections of signal lines to signal connectors on PCBs (printed circuit boards) is disclosed. The method is particularly suitable for low cost connections of SMT (surface-mount) RF (radio frequency) connectors to PCB signal lines, providing high mechanical strength and low EMI. This is achieved by constructing an enclosed shield around the connector and around the signal feed line, by the means of an auxiliary printed circuit board installed around the connector and on top of the micro-strip transmission line, providing the top side ground and to the metal body of the connector, while the copper on the under-side of the auxiliary PCB (located above the signal line) is etched away, to provide electrical isolation of the signal line from ground. This way, an effective, fully enclosed EMI shield, grounded to the main circuit ground is formed around the connector and above the micro-strip transmission line.

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